In the Specification:

Please replace the "Disclosure of the Invention" with the following:

-- In accordance with the present invention there is provided ~~a~~ process for the conversion of sludges and carbonaceous materials, ~~the process~~ characterised ~~by~~ in that the process comprises the steps of:

(a) Heating the material to be converted ~~in a~~ whilst being conveyed through a heating zone of a reactor in the absence of oxygen for the volatilisation of oil producing vapours, thereby producing both a vapour product and a solid residue or char;

(b) Contacting the vapour product and char ~~in a~~ whilst conveying that char through a reaction zone of the reactor at a determined Weight Hour Space Velocity ("WHSV") so as to promote vapour-phase catalytic reactions; and

(c) Removing and separating the gaseous products and char from the reactor,

wherein the material and the resulting char are conveyed by way of a non-positive conveyor, and less than 5% of the material to be converted is passed from the reactor in a time less than that required to heat it to a temperature of more than about 400°C.

Preferably, the gaseous products from the reactor may be condensed to produce oil and water. The oil and water may then be separated and the oil polished to remove char fines and any free water.

Still preferably, the inventory of char within the reactor is able to be adjusted to provide the required WHSV in the reaction zone of the reactor.

Still further preferably, the heating rate in the heating zone is between about 5 and 30°C/min.

The material to be converted may preferably be conveyed through the heating and reaction zones by a conveyor having a rotational speed of at least about 1 rpm.

Preferably, the conveyor is provided with paddles and rotates such that the paddle tip speed is between about 2 and 8 m/min.

Still preferably, less than about 5% of the char inventory is passed through the reactor in less than about 40 minutes.

The dried sludge is fed to, and char removed from the reactor by a means to ensure no ingress of air into the reactor, or egress of vapours from the reactor.

~~The temperature of the reactor is preferably at least 250°C~~. The temperature of the reactor is ~~still~~ preferably between 400 to 450°C.

The process of the present invention may further comprise the additional step of drying the material to be converted to less than 5% moisture prior to introduction to the reactor.

In accordance with the present invention there is further provided an apparatus for the conversion of sludges and carbonaceous materials, the apparatus characterised by comprising a reactor having a heating zone and a reaction zone and a means for conveying the material <u>in a non-positive manner</u> through both zones of the reactor in turn, the heating zone having a material inlet and the reaction zone having a material outlet and a gaseous product outlet, wherein there is further provided a retention means for retaining the material within the reactor such that a desired Weight Hour Space Velocity ("WHSV") for the material is achieved.

Preferably, the means for conveying material is a conveyor that allows a level of back mixing of the material being conveyed.

In one form of the present invention the conveyor comprises in part an elongate shaft along at least a portion of the length of which are provided a plurality of paddles extending radially therefrom arranged to engage a bed of the material to be conveyed therethrough.

Preferably, the paddles are provided in a single row helical arrangement along the elongate shaft. The paddles preferably overlap along the length of the shaft.

The paddles are preferably spaced radially from adjacent paddles by between 30 to 90°. Still preferably, adjacent paddles are spaced apart from adjacent paddles by about 72°.

Still further preferably, every second paddle is pitched at a back angle towards the material inlet. The back angle is preferably about 10°.

Preferably, the retention means is provided in the form of a weir. The weir is preferably positioned within the reactor at a point immediately before the solids material outlet.

Still preferably, the weir is tilted or rotated within the reactor with respect to the shaft of the conveyor so as to approximate the tilt or rotation of the bed of material provided therein. In one form of the present invention the weir is rotated through 30° to the horizontal.

The weir is preferably adjustable in height. --